



# UNITED STATES PATENT AND TRADEMARK OFFICE

50

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,688	06/12/2001	Jae-Yoel Kim	678-693 (P9800)	4991
28249	7590	07/14/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			TORRES, JOSEPH D	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Office Action Summary**

Application No.

09/879,688

Applicant(s)

KIM ET AL.

Examiner

Joseph D. Torres

Art Unit

2133

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8, 9, 19, 20, 25 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8, 9, 19, 20, 25 and 29-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 20050711.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 05/05/2005 have been fully considered but they are not persuasive.

The Applicant contends, "The Examiner is incorrect in asserting this rejection on two grounds. First, and most obvious, the apparatus or method of the claims of the present application is practiced in a mobile communication system".

The Examiner disagrees and asserts that, first of all, the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim. There is no limitation in the body of the claims indicating any connection to a mobile communication system, hence "mobile communication system" in the preamble is not given any patentable weight.

The Applicant contends, "Claims 8, 9, 25 and 32-36 are directed to an apparatus, and by definition, an apparatus is neither a computer program nor a mathematical algorithm".

The Examiner disagrees and asserts that, first of all, the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim. There is no limitation in the body of the claims indicating any

Art Unit: 2133

connection to an apparatus, hence "apparatus" in the preamble is not given any patentable weight.

The Applicant contends, "Claims 19, 20 and 29-31 are directed to a process, a method, for encoding. M.P.E.P § 2106 Patentable Subject Matter - Computer-Related Inventions deals directly with computer related inventions and does not exclude from patentability the method claimed in Claims 19, 20 and 29-31".

Adding 1 to 1 is only useful if it is attached to a useful hardware that provides utility. The method of claim 19 can be carried out by hand or in a computer and there is no indication in the body of the claims that the algorithm is used in any useful tangible hardware (Note: the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim).

The Examiner would like to point out that MPEP § 2106 provides various useful examples of carefully crafted claim language useful in overcoming 101 and 112 issues.

The Applicant contends, "Presented in the October 2004 Response was that Claim 19 of the present application relates to (48,10) coding".

That is incorrect, presented in the October 2004 Response was, "It is respectfully submitted that Claim 19 of the present application relates to (64,10) coding".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e.,

"Claim 19 of the present application relates to (48,10) coding" or "the present application relates to (64,10) coding") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Applicant contends, "Accordingly, Claim 8 of the present application, which describes a new sequence and puncturing pattern for (48,10) coding, is not rendered obvious by and is distinguished from the references".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "(48,10) coding") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Applicant contends, "Accordingly, Claims 25 and 29 of the present application, which describes a new sequence and puncturing pattern for (48,10) coding, are not rendered obvious by and are distinguished from the references".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "(48,10) coding") are not recited in the rejected claim(s). Although the claims are

Art Unit: 2133

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Examiner disagrees with the applicant and maintains all rejections of claims 1-8, 13 and 14. All amendments and arguments by the applicant have been considered. It is the Examiner's conclusion that claims 1-8, 13 and 14 are not patentably distinct or non-obvious over the prior art of record in view of the references, Citation #4 ("Text proposal regarding TFCI coding for FDD", TSGR1#7(99)D69, August 30-September 3, 1999) in view of Citation #7 ("Harmonization impact on TFCI and New Optimal Coding for extended TFCI with Almost no Complexity increase", TSGR#6(99)970, July 13-16, 1999) in further view of Claydon; Anthony Peter John et al. (US 5742622 A, hereafter referred to as Claydon) as applied in the last office action, filed 02/11/2005. Therefore, the rejection is maintained.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 9, 19, 20, 25 and 29-36 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. Claims 8, 19, 25 and 29 recite a "mobile communication system" in the preamble. See MPEP § 2172.01. The omitted elements

Art Unit: 2133

are: any relationship between the body of the claim in claims 8, 19, 25 and 29 and a "mobile communication system".

Note: the Applicant contends, "The Examiner is incorrect in asserting this rejection on two grounds. First, and most obvious, the apparatus or method of the claims of the present application is practiced in a mobile communication system".

The Examiner disagrees and asserts that, first of all, the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim. There is no limitation in the body of the claims indicating any connection to a mobile communication system, hence "mobile communication system" in the preamble is not given any patentable weight.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8, 9, 19, 20, 25 and 29-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to an algorithm that can be carried out mathematically by hand or by a computer program. Computer programs and mathematical algorithms are non-statutory.

Note: The Applicant contends, "Claims 8, 9, 25 and 32-36 are directed to an apparatus, and by definition, an apparatus is neither a computer program nor a mathematical algorithm".

Art Unit: 2133

The Examiner disagrees and asserts that, first of all, the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim. There is no limitation in the body of the claims indicating any connection to an apparatus, hence "apparatus" in the preamble is not given any patentable weight.

The Applicant contends, "Claims 19, 20 and 29-31 are directed to a process, a method, for encoding. M.P.E.P § 2106 Patentable Subject Matter - Computer-Related Inventions deals directly with computer related inventions and does not exclude from patentability the method claimed in Claims 19, 20 and 29-31".

Adding 1 to 1 is only useful if it is attached to a useful hardware that provides utility.

The method of claim 19 can be carried out by hand or in a computer and there is no indication in the body of the claims that the algorithm is used in any useful tangible hardware (Note: the preamble of a claim is not given any patentable weight unless it is connected in some way to the limitations in the body of the claim).

The Examiner would like to point out that MPEP § 2106 provides various useful examples of carefully crafted claim language useful in overcoming 101 and 112 issues.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



4. Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Citation #4 ("Text proposal regarding TFCl coding for FDD", TSGR1#7(99)D69, August 30-September 3, 1999).

See the Non-Final Action filed 02/11/2005 for detailed action of prior rejections.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Citation #4 ("Text proposal regarding TFCl coding for FDD", TSGR1#7(99)D69, August 30-September 3, 1999).

See the Non-Final Action filed 02/11/2005 for detailed action of prior rejections.

6. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Citation #4 ("Text proposal regarding TFCl coding for FDD", TSGR1#7(99)D69, August 30-September 3, 1999) in view of Claydon; Anthony Peter John et al. (US 5742622 A, hereafter referred to as Claydon).

See the Non-Final Action filed 02/11/2005 for detailed action of prior rejections.

7. Claims 25, 29-31, 33, 34, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Citation #4 ("Text proposal regarding TFCl coding for FDD", TSGR1#7(99)D69, August 30-September 3, 1999) in view of Citation #7 ("Harmonization impact on TFCl and New Optimal Coding for extended TFCl with Almost no Complexity increase", TSGR#6(99)970, July 13-16, 1999) in further view of Claydon; Anthony Peter John et al. (US 5742622 A, hereafter referred to as Claydon).  
See the Non-Final Action filed 02/11/2005 for detailed action of prior rejections.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOSEPH TORRES  
PRIMARY EXAMINER

Joseph D. Torres, PhD  
Primary Examiner  
Art Unit 2133